MEDICAL PATHOLOGY AND THERAPEUTICS AND PRACTICAL MEDICINE.

9. *Hæmoptysis in Phthisis occurring during childhood.*—The *Provincial Medical Journal* (Sept. 16, 1843) contains some interesting observations on this subject by Dr. P. HENNIS GREEN, with an account of eight cases observed by him.

It is a well known fact, though one not easily explained, that hæmoptysis and pulmonary hæmorrhage very rarely accompany any of the forms of phthisis to which children are extremely subject. Sir James Clark, in his work on Consumption (p. 61), observes, 'Hæmoptysis is a rare occurrence; at least, I do not recollect to have met with any case in which it was present.'

In a series of 118 cases of pulmonary tubercle in children, observed consecutively and in the same year by Dr. Green, with the object of forming a groundwork for the history of phthisis in children, he saw, he states, "only five examples of hæmoptysis,* although a few other cases presented themselves, in which the parents or patients alleged that spitting of blood had occurred at some period previous to the child's admission into hospital." He observes, however, that the absence of hæmoptysis may, in part, be accounted for by the circumstance that children (especially those of tender years) do not expectorate, but swallow, every thing which may be brought up into the mouth from the pulmonary mucous membrane. Mr. Murdoch relates a striking example of this fact in his thesis. A child, two years old, died suddenly from the rupture of a blood-vessel which traversed a tubercular cavity in the right lung. A very small quantity of blood had been discharged through the mouth, for the child had swallowed the greater part of it, and on examination after death the stomach and upper portion of the small intestines were found full of enormous clots of blood, which were moulded over their internal surfaces.

Dr. Green also alludes to a form of pulmonary hæmorrhage which is peculiar to children, and which is invariably and instantly fatal. It occurs in bronchial phthisis, and arises from the perforation of one of the large vessels of the chest by a tuberculated bronchial gland. Sudden death may thus occur from perforation of the pulmonary artery. Of this he has seen one example, and in a second case the artery was so completely flattened between two masses of the bronchial glands, that the passage of blood was interrupted, and death took place, as from disease of the heart.

10. *State of the blood in consequence of a change occurring in the process of Hæmatosis.* By Dr. F. SIMON, of Berlin.—In the case of a patient 53 years old, in whom some morbid changes of structure of a fungoid appearance were found in the small lobes of the liver, and likewise in the pyloric portion of the stomach, with atrophy of the spleen, whose lower extremities also had become swollen and œdematous, whose extremely colourless and bloodless skin, weak and oppressed pulse, indicated a deficiency in the quantity of the blood, and also a change in the composition of the blood; half an ounce of blood was drawn, at the suggestion of Dr. Schönlein, for the purpose of examination, in order to ascertain chemically the quality of its most important constituents. The blood, when fresh drawn, was of the ordinary colour, but extremely thin; the coagulum was tolerably firm; the blood allowed its blood-corpuscles to sink in a very short time, and these formed at the very most about the fourth part of the volume of the entire fluid; the supernatant serum itself was very slightly coloured, and was very watery; microscopical examination showed the quantity of the chyle-corpuscles to be proportionally greater than they are wont to be observed in healthy blood. The chemical examination gave the following very striking composition of this fluid:—

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* In 70 other cases observed, not consecutively, but at different periods, hæmoptysis did not occur once, at least while the patients were under observation.

		Healthy Blood.
Water	880·0	791·9
Solid constituents	112·0	208·1
Fibrine	3·0	2·0
Albumen	55·1	75·6
Blood corpuscles	45·8	112·3
Extractive matters and salts	8·9	14·2

Dr. Schönlein remarked the striking deficiency in the solid constituents; in this respect the blood resembles that of chlorotic individuals, and also that of persons labouring under typhus, when the morbid process has continued at a certain height for a long time. It is, on the contrary, distinguished from chlorotic blood by the great diminution of the blood-corpuscles and of the albumen which occurs at the same time; from typhous blood it is distinguished by the considerable amount of fibrine. There is no doubt that in this case the peculiar composition of the blood is to be accounted for by the serious disease existing in the three organs, equally important for the performance of chylopoiesis and hæmatosis—viz., that of the stomach, liver, and spleen.—*Prov. Med. Journ.* Sept. 9, 1843, from *Beitrage Zur Physiol. und Pathol. Chem. und Mikroskopie.*

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11. *Urine in Morbus Brightii.* By Dr. F. Simon.—About a year and a half ago my attention was called to the peculiar sediment which separates from the albumen of the urine in certain cases of albuminuria, particularly in cases where Bright's degenerescence of the kidneys happens to be present, and which, on being examined with the microscope, seems of a peculiar kind, and entirely different from the ordinary sediments. This appears to the naked eye as a slightly mucous deposit, not, however, to be confounded with the sediment from the vesical mucus; if the urine be carefully poured off, and the sediment be brought to the object-glass under the microscope, the following various forms are observed:—

1. Mucus-corpuscles of the ordinary size, partly granulated, with grains readily recognized.
2. Portions of epithelium, from the vesical mucous membrane.
3. Blood-corpuscles.
4. Round, dark globules, apparently filled with a granular substance of a diameter between 0·00060 and 0·00090 parts of an inch. These globules bore the greatest resemblance to those designated by Gluge inflammation-globules.
5. Vesicles, or vesicle-like arrangement of an amorphous matter, like coagulated albumen. These vesicles for the most part had real coverings, and were cylindrical, but in some the covering seemed to be wanting, and it was then only perceived that an amorphous, slightly granulated matter was connected together in a cylindrical form. The cylinders were in part entirely filled, in part they were empty, and contained only a small quantity of a granular substance. The filled cylinders contained sometimes a light, sometimes a dark granular substance, in which cells and globules, like mucus-corpuscles, appeared to exist, of the real presence of which, however, I was not able always to satisfy myself with perfect certainty. The breadth of the cylinder differed somewhat, the broadest I estimated at 0·00110 parts of an inch, the smaller at 0·00060. My attention being once directed to this phenomenon, I examined the urine attentively in cases of albuminuria, where pains in the region of the kidney indicated disease of this organ; and also in several cases where a degenerescence was admitted to exist, I observed these vesicles and globules. There is no doubt that these peculiar forms had their origin in the kidneys, and they are probably the morbidly changed epithelial linings of Bellini's urinary canals. Whether they occur only in cases of Bright's disease, or in other cases also, requires to be ascertained by more extended experience; according to my observations they always appear at the same time with a certain amount of albumen in the urine, but the blood-corpuscles are not always present. In one case, where ascites and

anasarca had already occurred; and the urine was secreted in only small quantity, I twice made a chemical examination of the urine: the first time the quantity of urine voided in twenty-four hours amounted to twelve ounces; it was of a dark-brown colour, contained no blood, but so much albumen, that after boiling in a test-glass the latter might be inverted without the coagulated albumen running out; the urine had an acid reaction, contained in the white mucous sediment much of the above-mentioned vesicles and globules, and had a specific gravity of 1·014. After some days the quantity of the secreted urine was less, its specific gravity greater, and it still continued to have an acid reaction. In both cases the uric acid was in a tolerably normal quantity, but the quantity of urea was diminished; some days later, with the diminished quantity of albumen, yellow-coloured uric acid presented itself, secreted spontaneously in large rhombic plates. I think that the occurrence of this peculiar form in albuminous urine, in cases of Bright's renal degenerescence, is of sufficient importance to invite the attention of the physician.—*Ibid.*

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12. *Urine in Pneumonia and Pleuro-pneumonia.* By Dr. F. Simon.—In a case of pneumonia, and in another of pleuro-pneumonia, a species of urine was observed, which was remarkable at once for its extremely peculiar properties, the same in both cases, but deviating from the normal properties of urine, and also in this respect, that, as Dr. Schönlein ascertained, its appearance coincided accurately with the occurrence of resolution of the inflammation. In the first case of pneumonia the urine during the violent inflammatory stage was dark, very acid, and unaccompanied by any sediment; at the time of resolution it was pale and neutral. One morning I found the urine of this patient yellow, neutral, and with a sediment of white crystals perceptible to the naked eye; the microscope instantly showed, by the remarkably beautiful form of the crystals, that they consisted of the triple combination of magnesia, ammonia, and phosphoric acid. The peculiar character of the urinary fluid itself surprised me; it was completely neutral, and every acid, even dilute acetic acid, produced in it a white precipitate, so that the first instant I suspected the presence of a caseous matter, but soon convinced myself, however, that this was not the case, for when I allowed a part mixed with hydrochloric acid to stand for some time, a precipitate was formed of beautiful, almost colourless uric acid crystals; these were also formed when I heated a part with acetic acid, and let it stand for some time. Alçohol formed a rather considerable precipitate, which was washed on a filter with alcohol; a portion of this precipitate was abstracted by warm water, which on evaporating the water remained behind; this was almost perfectly consumed on a platinum dish; when rubbed up with caustic potash it developed ammonia; heated with nitric acid, the presence of a great quantity of uric acid was ascertained. Whatever portion of the precipitate caused by alcohol was not dissolved in warm water, was readily taken up by hydrochloric acid, and again precipitated from the acid solution by ammonia; with the microscope I recognised this precipitate occasioned by ammonia as ammonio-magnesian phosphate. From this it results that the white precipitate occasioned in the urine by any acid was uric acid, which was found dissolved in the urine in so extraordinary a manner combined with ammonia—a circumstance which, in my opinion, has not yet been noticed up to the present moment.

In the second case of pleuro-pneumonia, which occurred at a subsequent period in Dr. Schönlein's clinical wards, a species of urine was voided at the time of the resolution which corresponded in every respect with that just described, especially with respect to the remarkable property now mentioned; here, too, we had the beautiful crystalline sediment of triple phosphate of magnesia and the precipitability of the urine by any acid. Two important questions arise here, one of which may be easily answered by accurate observation—namely, whether this peculiar phenomenon in the urine is connected with the process of resolution of the inflammation in the respiratory organs? The second question is probably not so readily answered—namely, what sort of connection this is? We may content ourselves at once with the solution of the first question, which appears of sufficient importance for the prognosis, and for which every practical physician will find an occasion at the sick bed. We may observe, that the phenomenon here remarked was observed in the urine for three or four days, and that in both cases a recovery took place.—*Ibid.*

13. *Urine in Typhus.* By Dr. F. Simon.—In the second volume of my "Medical Chemistry," I have spoken of a peculiar character of the urine in typhus, to which my attention was first directed by Dr. Schönlein, and it is important as well with respect to the development of the morbid process as for the prognosis. This regards the circumstance of the urine becoming alkaline at certain times, which alkalinity lasts for a certain time, after having had at first a strong acid reaction for some time, and the simultaneous occurrence of sediments, which, according to their nature, may bear a different signification, and whose appearance together with the reaction of the urine may be of considerable import, if correctly appreciated, with respect to the development of the disease. With respect to this matter, Schönlein remarks, that in the regular course of typhoid disease the urine is found at first to be dark, and to have a very acid reaction, whilst subsequently it becomes neutral and then alkaline; lastly, when the disease is tending to improve, the acid reaction again sets in. I had previously made observations which entirely corresponded with these; but I have, on the contrary, seen cases where the urine presented quite different properties,—it either continued permanently acid, or else became alkaline, only, however, for a short time, and soon again it assumed the acid reaction; in some cases an amendment took place, but on two occasions death followed. I afterwards followed up my inquiries regarding the urine in typhus with increased attention, and to the two cases previously observed I can now add six new ones, which further confirm the properties just mentioned. In the one case the urine was slightly alkaline on the seventh day after the patient's admission, and continued so, or with a neutral reaction, for seven or eight days, then it again became slightly acid and clear—the patient recovered. In a second more serious case the urine was acid up to the 21st day, the pulse rose to 120; then the urine commenced to become neutral, then alkaline; the nervous phenomena became more mild, the frequency of the pulse diminished; this state lasted from 10 to 11 days, during which time the urine flowed very copiously, became pale, and evinced a weak acid reaction. In two other cases the change of the acid into the alkaline reaction occurred before the 14th day of the disease. and in one of these cases the urine was so very intensely impregnated with carbonate of ammonia, and had so very stinking a smell, that it extended entirely over the sick chamber; the urine deposited a considerable pus-like or mucous-like sediment, consisting of phosphate of lime and phosphate of magnesia, and when mixed with acids effervesced violently; not till 14 days after, and in the last case three weeks, did the urine evince an alkaline or neutral reaction, the acid reaction then gradually became established, and both patients recovered. It is deserving of notice that a secretion of urate of ammonia not infrequently precedes the occurrence of the alkaline reaction and the appearance of the earthy phosphates in the urine, which, as Schönlein remarks, is in some measure to be considered as the precursor of this favourable change in the urine, and as the first critical effort of nature. The last time, when the process of the typhous disease appeared in a much milder form, this peculiar change of the reaction of the urine was in like manner observed several times, so that after the alkaline reaction has preceded and continued for some time, the recurrence of the acid reaction, combined with the clear appearance of the urine and a more copious secretion of the fluid, may be looked on as a favourable sign for the successful solution of the disease, whilst on the contrary, I remember some cases since the year 1840, where the urine came to have a neutral or alkaline reaction, but passed soon again into the acid reaction, in order to become alkaline again at a subsequent period, but in like manner only for a very short time: in one of these cases the disease was extremely tedious, and terminated fatally.—*Ibid.*

14. *Urine in Bronchitis.*—M. Becquerel states, (*Semeiotique des Urines,*) that in slight bronchitis, the urine may remain in the normal state; sometimes it assumes the febrile characters. These characters—sub-diminished quantity, increase of density, of colour, sediments, &c.—present themselves in general during the first two or three days of the disease, probably owing to this circumstance, that the individuals affected have continued their ordinary employment notwithstanding the disease had commenced, or else to the disturbance which this affection, however slight it may be, had occasioned in the general system; after two or three days' rest this state of the urine disappears, and it assumes its normal character.

In severe acute bronchitis, which gives rise to strong reaction and to intense dyspnœa, and more especially in capillary bronchitis, the urine puts on the characters of the febrile state in an extreme degree; it becomes diminished in quantity, of a very deep colour, increases in density, and frequently presents sediments of uric acid, either spontaneously or occasioned by the addition of a small quantity of nitric acid; the urine also frequently contains in this disease a considerable quantity of albumen; and probably capillary bronchitis is the disease which most frequently occasions the presence of this proximate principle in the urine. It is not unlikely that to the presence of this new element is to be attributed the very great dyspnœa which accompanies capillary bronchitis, and which causes a sanguineous congestion in the principal viscera of the abdomen, and more especially in the kidneys. This congestion may, I think, account for the presence of the albumen. In the period of convalescence there is observed that which is seen in all acute diseases. The urine will either return to the normal state, or will assume anæmic characters (diminution in the quantity of the solid matters held in solution in the urine); the urine is then pale, and of small density. This last effect is produced, especially if the patient has been much debilitated, either by the disease itself or by the means employed to combat it.—*Prov. Med. Journ.* Sept. 30, 1843.

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15. *Urine in Pneumonia.*—It may be laid down as a general principle, according to Becquerel, (*Semeiotique des Urines,*) that, when an inflammation of the lung occurs in an individual hitherto in good health and tolerably strong, the urine becomes febrile, diminished in quantity, high-coloured, &c. These characters are more especially marked when the disease is most intense; then, according as the disease declines, the urine gradually returns to its normal state; and it is but rarely, and as an exception, that the urine presents febrile characters when the pneumonia has reached the stage of resolution.

In convalescence from pneumonia the urine sometimes presents the natural healthy appearance; sometimes it is paler, less dense, and anæmic. The last case occurs chiefly when the disease has been treated by profuse blood-letting. When pneumonia attacks an individual whose constitution has been wrecked previously by any cause, it may happen that the urine will not assume the febrile characters, and that notwithstanding the intensity of the pneumonia and of the accompanying fever, this secretion is scarcely more highly coloured than in the natural healthy state, and presents no disturbance or sediment at any period of the disease. It may be well to observe that pneumonia is one of those diseases in which the colouring matter of the urine is most increased.—*Ibid.*

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16. *State of the Urine in Cirrhosis of the Liver.* By M. Becquerel.—At the commencement of cirrhosis, and especially if it follow a chronic course, the urine may not present any perceptible changes. Whenever jaundice exists, the urine puts on a saffron yellow colour, and contains a variable quantity of the colouring matter of the bile. The presence of this substance does not prevent the appearance of the following properties. Every time the cirrhosis attains a certain degree, and gives rise to the production of functional symptoms of a certain intensity, the alteration of the urine is perfectly analogous to that which occurs in cancer of the liver. Its characters are as follows:—Quantity of urine is very scanty; orange yellow colour very deep, and often reddish; density in-

creased; great acidity. It is charged with a large quantity of uric acid, which is precipitated, either spontaneously on cooling or by the addition of a little nitric acid. This precipitate, which in general is rather copious, is almost uniformly of a bright red colour, and somewhat like cinnabar. What is the cause of such a change?—is it owing to the venous congestion produced in the cortical substance of the kidneys by the powerful obstacle caused to the abdominal circulation, in consequence of the obliteration of the divisions of the vena portæ? This may be so, since we see a similar effect produced in diseases of the heart and in pulmonary emphysema when they have attained an advanced stage, one of the consequences of which is to produce a mechanical congestion of the kidneys; but it is impossible to state it positively, and certainly to account for it. The appearance of these abnormal properties in the urine always indicates that the cirrhosis, in whatever state it may be, has occasioned functional disturbances independent of any complication.

The existence of cancer of the stomach, of pulmonary tubercles, or of diseases of the heart, all affections which may coincide with, or even precede, the cirrhosis, does not at all prevent the modification of the properties of the urine. In the last case only, if the infiltration of the cellular tissue is considerable, it may happen that a small quantity of albumen may be found in the urine.

If the case be complicated with Bright's disease, two circumstances may occur.

First, If the cirrhosis has preceded the morbid alteration of the kidneys, and if it has already arrived at an advanced stage, the urine will undergo the modification already described, only we shall find a considerable proportion of albumen.

Secondly, If, on the contrary, the two diseases are developed simultaneously, the change in the kidneys being always in this case more advanced than that of the liver, the result will be that the urine will present all the characters peculiar to the morbus Brightii. It is always extremely useful to examine the urine in cirrhosis of the liver, because the diagnosis of this disease is often difficult, and because, by combining the study of the changes in this liquid with the other symptoms of the disease, we shall possess a valuable sign which will contribute to enable us to recognize the disease.—*Prov. Med. Journ.*, from *Semeiotique des Urines.*

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17. *Inoculation by means of Contagious Cells.*—Dr. Klencke, of Brunswick, is preparing for publication a work on this subject, and meanwhile furnishes us with some of the interesting results obtained by his experiments on contagion. M. Klencke has succeeded in transplanting the contagious principle from one individual to another, by means of the cells of carcinoma, tubercle, melanosis, condyloma, and warts; mucous membranes affected with ozæna and coryza; carbon, hydrophobia, the vaccine virus; small-pox, and the other acute exanthemata; and he concludes, from these experiments, that contagious maladies are transmitted by means of cells, which enjoy a semi-independent vitality.

Cells of Carcinoma.—Langenbeck has already shown the possibility of the inoculation of carcinoma.

Cells of Tubercle.—After being well assured of the nature of these cells by a microscopic examination, he introduced some of them into the veins of a rabbit, in which were found, twenty-six weeks afterwards, numerous tubercles in the lungs and in the liver. The same inoculation practised on a rook did not succeed.

Cells of Melanosis.—Some cells were collected from a black liquid in the orbit of a mare affected with melanosis, and were inoculated into the conjunctiva and lachrymal gland of an old horse. These merely caused a black spot on the conjunctiva, which extended very slowly; but, about the sixteenth week after the inoculation, melanosis of the lachrymal gland was very decided; it had invaded the whole organ, and pushed the globe of the eye forward. Some of the melanotic matter, taken from the same mare, was injected into the veins of the neck of a dog, who died suddenly whilst hunting three weeks after the operation. There was found in the left lung a melanotic tumour, which was ruptured, and which contained a brown, coffee-coloured fluid, abounding in cells.

Cells of Condyloma, Warts, Ozæna, and Coryza.—Many inoculations were made with these, and the results were remarkable. The cells of recent coryza are very different from the confervæ of ozæna; but, in proportion as coryza becomes chronic, the cells disappear, and give place to the sporules of confervæ. The cells of coryza are readily destroyed by the action of chloride of lime—an important fact in the treatment of ozæna.

Cells of Carbon (malignant pustule).—Experiments with these are dangerous. The cells are found in a yellow, lemon-coloured fluid, which trickles from the pustules. They have so strongly contagious a property, that, after having been subjected to boiling water, and kept for fifteen days in lime, they were able to inoculate a young goat.

Cells of Hydrophobia.—These are of two kinds, some as large as a lentil or pea, which have been noticed already by Urban and Magiotel; others, microscopic in dimensions, and remarkable for the blue tint of their parietes, appear to colour the large ones, in which they swim. The author says he has found them in the excised cicatrix of a bite, which had given reason to fear hydrophobia. He has also met with the same cells or globules in the foam under the mucous membrane of the cheek, and in the salivary glands of hydrophobic dogs. Some of these globules, taken from the parotid gland, and introduced into a wound made in the ear of a cat, infected the animal. Inoculations from animals that had been dead more than a day were not followed with any result. The cells, if treated by boiling water, are destroyed, or rendered inert, and their inoculation is not followed with any effect. They readily dissolve in the mineral acids, and in chlorine water, which is worth noticing in practice. Treated by belladonna, the cells become angular and discoloured, but still remain capable of being inoculated with effect.

Cells of the Vaccine Virus, of Small-pox, and of the Acute Exanthemata.—Microscopic researches prove that lymph is inoculable in proportion as it contains a greater or less number of cells.—*Prov. Med. Journ.*, Sept. 23, 1843, from *Archives für die Gesammte Med.*

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18. *Paralysis without loss of Sensation, from Disease of the Cervical Medulla.*—The 26th vol. of the *Med. Chirurg. Trans.* contains an account by Dr. John Webster of a very interesting case of paralysis of motion without loss of sensation.

The subject of this case was a gentleman 36 years of age, muscular frame, capable of undergoing a great deal of bodily exertion without fatigue; and until a few years before death, had enjoyed excellent health, except that he suffered occasionally from severe headaches, which were generally relieved by purging. He always perspired very freely in warm weather, or after much exercise, but through the whole of his illness the cuticular secretion was scanty, and latterly entirely suppressed.

In 1836 he was annoyed for some months by a phagedenic ulcer on the left leg, and again in 1838. In the last named year he had also a large chronic ulcer on the posterior part of the pharynx. These ulcers were not syphilitic. From these ulcers the patient's constitution was impaired and he suffered also from a domestic affliction.

Towards the autumn of 1839 the patient again began to suffer materially in health; he now complained of almost constant pains in the head, which occasionally became so severe, as even to oblige him to stop in the street, and to lean against the rails for support. These symptoms were also frequently accompanied by sickness and considerable prostration of strength; the bowels being generally costive, the tongue much furred, and the appetite at the same time impaired. In January 1840, slight epileptic attacks supervened, attended with an exceedingly slow pulse, from 35 to 40 in a minute. From this distressing state he however recovered so much, as to be able to leave home about the end of February, and soon afterwards to resume, in some degree, his ordinary professional avocations.

In the following March he was again attacked by several epileptic fits, but of a much more marked character than any of those noticed previously. These convulsive seizures occurred repeatedly; and after some weeks, they were followed by severe spasmodic contractions of the lower extremities, which often became so violent, that both knees were thereby forcibly drawn up towards the epigastrium, when the patient's legs would be again suddenly extended to their full length; and although the sufferer appeared perfectly cognizant of their occurrence, and often felt acute pain at the time, he was nevertheless quite unable to control any of these vehement involuntary movements of the extremities.

At this particular period, often when talking to another person, the patient was unable to finish the sentence he had just commenced, in consequence of an involuntary propensity, which he could not restrain, of repeating many times over some principal word in the phrase he wished to express; or the same difficulty would occur from making use of a word quite different from the one he really wished to employ; and this confusion in the use of words actually happened, without the patient being able to correct himself, although perfectly aware at the moment that he was speaking erroneously.

In the summer of 1840, the patient complained of considerable weakness in his back and loins, accompanied with pains of the head, and in the nape of the neck. He soon afterwards became unable to walk steadily without support: "he felt as if his body were cut in two, and the lower half falling away from the upper." Both hands and arms now became very weak, and were soon nearly powerless; and he also complained of considerable pain about the fourth cervical vertebra, increased in severity on merely bending his head backwards; but this sensation felt however less painful when rotatory motion of the neck was only attempted.

About the end of autumn in 1840, as most of the symptoms had gradually undergone material alleviation, compared with their former severity, the patient seemed now greatly recovered in strength and could walk out occasionally, with only the aid of a staff. Indeed, towards the end of that year, the progress made was so far satisfactory, and the general health apparently so much restored, that he was even able to visit his friends and join a little in society.

During this temporary amendment, the patient took a very long walk on a very cold and frosty night, by which he was chilled and completely exhausted. This misadventure brought on a recurrence of all the symptoms, and the inability of moving his limbs; he got at last so very feeble that eventually he was entirely deprived of the use of both legs and arms. Ultimately, the muscles of the abdomen and chest were similarly affected, whereby respiration could then be only carried on by the diaphragm; when the patient likewise lost the power of coughing, and was scarcely able to expectorate. The bowels now became even more constipated than before, and in order to act upon them sufficiently, it was necessary to employ very active purgatives, assisted by strong enemata; whilst the bladder required to be frequently emptied by the catheter, during many months consecutively. Notwithstanding the total loss of power over all the muscles situated lower than the neck, the sense of touch still continued as acute as ever throughout the entire frame; indeed, the cuticular surface appeared occasionally to be even more sensible to external impressions than in the patient's previous good health; since he could, for instance, feel most acutely the slightest change in the temperature of the surrounding atmosphere, especially when a current of air passed over any part of his person.

At the same time all the senses continued perfectly normal, the memory appeared unimpaired, the patient had no headache, and his intellectual faculties were as perfect as they had ever been at any former period, although once or twice he seemed to be a little confused or slightly delirious; but this symptom was of such partial duration, that it scarcely deserves observation.

Besides the symptoms already detailed, the patient frequently complained of feeling intense heat over all the body, whilst the surface actually felt cold to a bystander; and at other times he experienced alternations of heat and cold, although his skin appeared to others of the natural temperature. Again, if a foot or even a toe were touched, spasmodic twitchings of the limb, accompanied with pain, were always produced; the patient's sense of feeling being, at the same time, so accurate, that he could distinctly tell the particular point of his body to which the attendant's finger was applied. The circulation still continued languid, and sometimes the pulse was intermitting; whilst the cuticle remained devoid of perspiration, being perfectly dry, and exhibiting quite an opposite condition to that noticed during the patient's previous robust health.

In the latter months of his illness, the patient often complained of excessive coldness in the epigastrium and stomach, along with considerable distension of the abdomen from flatus, although the trunk of the body and the extremities frequently felt burning hot to the patient at the same moment. At this stage of the disease, the spasmodic twitchings of the legs were not only more frequent than previously, but they sometimes even became so violent as almost to throw the patient off his couch, being also attended with great additional suffering.

The urine, which at first was very little altered from its healthy condition, now deposited a considerable quantity of a thick ropy sediment, and although this secretion had long been drawn off by the catheter, it now passed involuntarily, and almost in drops; whilst the fæces likewise came away in a similar manner, the evacuations being of a watery consistence, and latterly very offensive.

The appetite and digestion, always much impaired, entirely failed towards the termination of this painful and protracted malady; when frequent nausea, vomiting, singultus and aphthæ supervened. Finally, notwithstanding the efforts made to alleviate the afflicted patient's sufferings, all the symptoms continued, with unmitigated severity, till the 22d of July last, when he died, quite exhausted; retaining however his intellectual faculties perfect to the last moment of existence.

Autopsy, 18 hours after death. The body appeared considerably emaciated, but was not discoloured. Having removed the skull cap, some effusion of lymph was found under the arachnoid membrane covering the left side of the brain, along with turgescence of that, and the other hemisphere; both divisions being pale, and exhibiting a watery aspect, although their texture was firm and compacted. The ventricles of the brain seemed large, particularly the left; and about two ounces of serum were effused in these cavities; the foramen commune being at the same time larger than natural. The arachnoid tissue extending over the pons Varolii adhered to the parietal layer of that membrane; but no tumour, or any other change of structure was found either in the brain or cerebellum, excepting that the latter organ appeared anemic, and rather softer in texture than ordinary.

On opening the thorax, every part seemed quite healthy, although the pleura pulmonalis on the left side of the chest, adhered firmly to the pleura costalis, by a few strong bands, some of which were apparently of considerable standing. The abdominal viscera likewise appeared very little changed from their natural condition, the liver, stomach and intestines being free from disease: with the exception of the kidneys, which were somewhat enlarged, anemic, and exhibited marks of chronic inflammation on the internal membrane of the pelvis and infundibula. The omentum and some of the small intestines also adhered to the bladder by strong bands, whilst that viscus was much diminished in magnitude, felt very hard to the touch, and on cutting into its cavity, it actually appeared not larger than the interior of an ordinary sized walnut, its muscular coat being unusually thickened. The mucous membrane was dark-coloured and rugous on the surface.

Having carefully laid open the vertebral column, throughout its whole length, the theca, corresponding to the three or four lower cervical vertebræ, was found to be much distended; and on being cut into, the arachnoid cavity, with the subarachnoid tissue, appeared filled with lymph, which evidently had been some time effused; as the membranes were thereby united to each other, and also to the cord. On making a more minute examination of the parts, the adhesions of the membranes to the cord were discovered to be much firmer at its anterior than posterior portion; indeed, they were actually so strong as to be inseparable from the medulla without rupture. At this particular part, the medulla also appeared larger than usual, felt soft and pulpy to the touch, and on being divided by the knife, its substance seemed to be in an almost diffluent state, infiltrated with serum, but exhibiting a natural colour. For the extent of half an inch above the point just described, the cord had a dusky red tinge, appearing however, of the ordinary consistence. In the anterior and posterior columns, not much difference was observable to the naked eye, at the first superficial examination of the diseased part of the medulla; although both divisions of the cord seemed considerably softened, infiltrated and disorganized, particularly in the posterior columns; whilst as well above, as below the affected portion, the medulla was healthy, and quite natural in appearance.

Since it is often very difficult by the ordinary means of investigation, to describe accurately all the minute alterations of structure, which disease may induce in so delicate a texture as the spinal cord, the microscope becomes an important auxiliary to scientific anatomists. Indeed, without the aid of that useful instrument, it would in many cases be difficult, if not impossible, to ascertain correctly the actual pathological changes of structure, which have taken place in that organ, so as to be able to explain the phenomena and symptoms characterizing cases like the one now under consideration.

Fortunately on the present occasion, such a desideratum has been supplied; as I am enabled to add the following minute and valuable account of its microscopical examination, made by that able physiologist, Professor Todd, of King's College: "The portion of spinal cord submitted to me by Dr. Webster, appears to consist of the greater part of the cervical segment. I find great destruction (from softening) of the medullary substance of the posterior columns, especially that of the right side; the antero-lateral columns seem to have been also the seat of the softening process to a less degree, but I do not find that they have suffered any loss of substance. In examining the softened parts by the microscope, I detected very few of the proper nerve-tubes; and those which I did observe, were much altered from their natural appearance; they had become opaque, and had assumed an indistinctly fibrous aspect. I was unable to find any trace of gray matter. The posterior horns must have shared in the great destruction of the posterior columns, and probably the anterior ones experienced a similar fate. It is right, however, to observe, that the specimen had been preserved some time in spirits, before it came into my hands. I found throughout the diseased part, numerous small scales, (cholesterine?) such as are very commonly met with in portions of the nervous centres, preserved in spirits."

Dr. Todd then makes the subsequent very important remarks:—"I consider this case of the greatest physiological interest, as affording unequivocal proof, that the posterior columns cannot perform the office assigned to them by some physiologists, namely, that of conducting sensitive impressions to the brain, or or at least, that they are not the only channels of this communication. It is also important in an anatomical point of view, as showing that the posterior roots of the nerves are independent of the posterior columns of the spinal cord; for although the latter were destroyed to so great an extent, the former did not appear to have suffered in any degree."

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19. *Inflammation of the Nervous Centres.*—Dr. JOHN HUGHES BENNETT has published in several successive numbers of the *Edinburgh Medical and Surgical Journal*, some extremely interesting pathological and histological researches on inflammation of the nervous centres. We at present give only the conclusions, but shall hereafter notice some of the particulars.

The author conceives that the following conclusions may be drawn from his observations:

"1. That two kinds of cerebral and spinal softening exist, an inflammatory and a non-inflammatory, which may always be distinguished from each other by means of the microscope.

"2. That inflammatory softening is characterized by the presence of exudation corpuscles and granules, whilst in non-inflammatory softening these bodies are never found.

"3. That the nature of inflammatory softening consists in the formation and development of nucleated cells in exuded blood plasma; whilst the nature of non-inflammatory softening consists in the mechanical destruction or maceration of the nervous tissue in serum, or is the result of putrefaction.

"4. That non-inflammatory softening, unaccompanied by hemorrhage, is usually *post mortem*, and causes no symptoms; whilst uncomplicated inflammatory softening always causes marked symptoms, which, however, vary according to the seat of the lesion.

"5. That the inflammatory and non-inflammatory softenings have frequently been confounded together by morbid anatomists, it being impossible to distinguish one from the other, with any certainty, by the naked eye.

"6. That inflammation in the nervous centres has, in several instances, been demonstrated by means of the microscope, after it had escaped the search of good morbid anatomists, and been indicated by the most unequivocal symptoms.

"7. That every different coloured softening has, at various times, been found to be connected with inflammation, but that yellow and white softenings are most frequently non-inflammatory, whilst the fawn-coloured softening is commonly inflammatory.

"8. That red softenings usually depend on congestion, or the direct extravasation of blood; yellow softenings. on the imbibition of the colouring matter of the blood; fawn and gray-coloured softenings on the presence of brown exudation corpuscles; and white softenings, in the great majority of cases, are *post-mortem* and the result of maceration in serum.

"9. In no single instance has softening of the nervous centres been traced to the presence or infiltration of pus.

"10. That inflammation of the central parts of the brain generally produce well-marked lesions of sensation and motion, whilst, in inflammation of the peripheral portions, lesions of intelligence are commonly well pronounced.

"11. That in idiopathic inflammatory softening of the brain, contraction in one or more limbs is a common symptom.

"12. That the fawn-coloured spots described by Dr. Sims are no evidence of the cure of inflammatory softening.

"13. That inflammation accompanying hemorrhages is usually consecutive.

"14. The softening surrounding apoplectic clots or sanguineous infiltration is no proof of inflammatory action."

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20. *Pathological causes of Cyanosis.*—Dr. Craigie has given in the *Edinburgh Medical and Surgical Journal*, for October last, some very interesting observations on the pathological causes of cyanosis.

"It has been usually supposed," he remarks, "that the open state of the *foramen ovale*, whether direct or oblique, is a primary lesion of the heart, and is pernicious to the patient, in allowing the free intermixture of the blood of the right chambers of the heart with that of the left. Within certain limits this idea is well-founded; and in a certain number of cases, the open state of the *foramen ovale* tends to impede nutrition and to abridge the duration of life. I am, nevertheless, satisfied, both from the facts of the case now related, and several others, of three circumstances; *first*, that the open state of the *foramen ovale* is rarely a primary and solitary lesion; *secondly*, that when it is a solitary lesion it is not injurious, and the venous blood of the right auricle is not thereby necessarily mixed with the arterial blood of the left auricle; and *thirdly*, that, in opposition to what has been hitherto usually taught, the open state of the *foramen ovale* is in a large proportion of cases the means of prolonging life.

"It is unnecessary for me to enter into any formal defence of the latter conclusion, which, however paradoxical it may seem, and however opposed to the usually received dogmas, flows almost directly from the facts which may be traced in every case of open *foramen ovale*. That, in short, it is not the primary lesion. From the phenomena of the cases recorded, on the contrary, and from the frequency of the arctated or contracted state of the pulmonary artery, it must be inferred that the obstructed state of that artery is the primary lesion, and determines not only the open state of the *foramen ovale*, but the hypertrophy of the right ventricle. This is the result, whether the pulmonary artery is only greatly narrowed in calibre, or terminates in a *cul de sac*, or is obstructed by a membranous partition formed by the coalition of the semilunar valves.

"The effect of such an impediment is manifest. The blood cannot pass into the pulmonary artery with the requisite freedom and facility. The result is over-distension, *first* of the right ventricle, and excessive labour of its muscular apparatus; *secondly*, of the right auricle, and excessive labour of its muscular apparatus, with extreme dilatation of its membranous portion; *thirdly*, over-distension and congestion of the whole venous system all over the body. The lungs, meanwhile, receive little or no blood, and, consequently, the blood is not duly aerated or supplied with oxygen, and cleared of carbon and carbonic acid. This is doubtless an evil and a great one. But Bichat has obscurely suggested, and Dr. Williams and Dr. Kay have clearly shown, that dark-coloured blood, or that which is venous is adequate to maintain vital action. It is, indeed, a less evil, and more tolerable than total obstruction in any of the large vessels, and especially in a vessel like the pulmonary artery. Every thing that we now know of these cases shows that the obstruction to the circulation through the pulmonary artery must be the main cause of the short and transitory existence of persons labouring under this severe lesion; and that the open state of the *foramen ovale*, instead of being, as William Hunter and other authors imagined, a cause of death, furnishes the only means by which life can be prolonged, while a function so important as that of the circulation through the lungs is impeded.

"I am further entitled to infer from various facts in the history of the development of the ovum, that the obstructed, or, it may be, the undeveloped state of the pulmonary artery, is the anatomical cause of the perforated septum, and of the origin of the aorta from the two ventricles when that malformation is observed.

"It would lead to some curious and interesting results to inquire by what means the impeded function of the lungs is in these cases compensated; for that it is compensated by the action of the skin and other membranes, can scarcely be doubted. But this would lead me into a field too extensive for consideration at the present time."

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21. *Certain affections depending on abnormal conditions of the Nervous Centres.*—Dr. Favell read a paper on this subject before the Sheffield Medical Society, October 19, last. He commenced by observing that there is no fact in pathology more clearly established than that the peripheral extremities of nerves often give the earliest, and sometimes the only, indication of disease existing in nervous centres. Hence, the symptoms of irritation existing in different organs frequently do not depend on any abnormal condition of the part immediately affected, but are to be traced to other organs situated remotely from them. The doctor urged the importance of this doctrine in a practical point of view. During the last session, he remarked, he drew the attention of his brethren to the subject, in some observations "On certain Morbid Phenomena illustrative of the Reflex Functions of Nerves," and especially the occurrence of chorea in cases of pericarditis, where the extremities of the nerves being the seat of irritation, the irritation itself is thrown back upon the spinal nerves, and thus induces general spasmodic action. The cases to be adduced on the present occasion, however, he remarked, differ greatly from that to which allusion has just been made, inasmuch as the source of irritation in them is situated not at the extremities of the nerves, where the irritation is perceived, but at the part from whence they originate. The doctor confined his observations entirely, on the present occasion, to affections of the spinal cord and its coverings, and illustrated his

general proposition by details of cases which had occurred to himself of the following kind:—

1. Menorrhagia, from irritation of the sacral nerves, evidenced by tenderness on percussion over the sacrum.
2. Painful digestion and enterodynia depending on irritation of nerves proceeding from the dorsal portion of the spinal cord.
3. Pleurodynia, the brain being constant and the breathing very laborious, but unaccompanied by friction sound.
4. Excitement of the heart, presenting the usual general symptoms of hypertrophy.
5. Spasm or loss of power, partial or complete, in the organs of locomotion.
6. Loss of power over the sphincters of the bladder and rectum. In all these cases there was tenderness on pressure or percussion over some portion of the spinal column. The treatment adopted consisted in placing the patient on the abdomen on a prone couch, and in the earlier stages abstracting blood by means of leeches. Blisters were subsequently applied first to one side and then to the other of the spinal column. In very chronic cases the leeches were frequently omitted, and, after a succession of blisters, a seton was occasionally inserted immediately above the seat of tenderness.—*Prov. Med. Journ.*, Nov. 4, 1843.

22. *On Pulmonary Tubercles.*—M. **Boudet** establishes by his researches that the tubercular degeneration of the lungs and bronchial ganglia in man is much more common, and more curable than most physicians are aware of. Having examined the lungs of 197 persons who died in the hospital of various diseases, or were killed suddenly by accidents, he has detected tubercles in the lungs of one child under 2 years of age; from this age to that of 15, tubercles existed in three-fourths of the cases; and in those between 15 and 76 no fewer than six-sevenths of the bodies exhibited the tubercular deposit in the lungs. This result is explained, according to M. Boudet, by the facility with which the tubercles undergo a change in their intimate constitution, by which they become not incompatible with a state of health. These modes of cure he states to consist of sequestration, induration, with their cohesion increased or diminished, calcareous induration, absorption, and elimination. In the calcareous degeneration the carbonates and phosphates of lime form but a small proportion; seven-tenths of the concretions are formed of the chloride of sodium and the sulphate of potash. The cure of tubercles may take place at every period of life, but it is more common as the age increases. It also occurs at all stages of evolution of the tubercles. M. Boudet has also observed the cure of tubercles in the living. In less than one year he has collected 141 cases, from the examination of which he draws the following conclusions.

1. Persons who have presented marked symptoms of phthisis, even in the last degree, may, after a longer or shorter time, and for many years, enjoy excellent health.
2. Notwithstanding this general satisfactory state it is always easy to detect the existence of more or less extensive local lesions.
3. Phthisis transmitted by hereditary descent seems to be less capable of cure than accidental phthisis.
4. Nature performs by her own efforts these cures. For observation has proved that phthisical patients, left to themselves, or treated by the most opposite means, have recovered their health.
5. Amputation of limbs in the phthisical ought not to be absolutely proscribed. In three phthisical youths, labouring under severe affections of the lower limbs, the health was completely restored after the amputation of the diseased limb.—*Edin. Med. and Surg. Journ.*, Oct. 1843, from *Comptes Rendus des Seances de l'Acad. des Sc.*, Jan. 16, 1843.

23. *Successful employment of Belladonna as a prophylactic during the prevalence of Epidemic Scarlatina.* By Dr. **Stievenart**, of Valenciennes.—An epidemic scarlatina ravaged, during the winter of 1840–1, several villages in the neigh-

bourhood of Valenciennes, when Dr. Stievenart was induced to try the prophylactic properties which belladonna is said to possess against this disease. The circumstances rendered any trial of this kind of double value, as, on account of the fatality of the epidemic, 30 patients had already died out of 96 seized. In a small village, out of 250 individuals, 200 took belladonna, and were all preserved from the attacks of scarlet fever. Of the 50 others, 14 were seized with the disease and four of them died. At the village of Curgies Dr. Stievenart administered the belladonna to the children at the public school, and allowed them to continue at their lessons and have communication with the other children of the village. All to whom the belladonna was administered escaped the scarlet fever; but a few who refused to take it were seized with the disease.

The belladonna was administered in two forms; in solution, or as a powder. Two grains of the recent alcoholic extract of belladonna were dissolved in an ounce of any aromatic infusion, and of this two drops were given to a child of one year old daily for nine or ten days. An additional drop was given for every additional year of age. The largest daily dose was, however, limited to twelve drops. When the belladonna was given in the form of a powder, half a grain of the powder of the root was mixed with a small quantity of sugar and divided into ten doses. One of these was given, morning and evening, to children of from one to two years old; two powders, morning and evening, to those from three to five; three powders to those from six to nine; four to those from ten to fourteen; and five to adults.

These small doses never produced the toxicological effects of belladonna; in fact, they scarcely ever had any marked action on the animal economy. In five or six cases Dr. Stievenart observed a rash similar to that of measles; and, in a few other cases, headache with dilatation of the pupils, dryness of the throat, and slight sore throat, but which had no resemblance to that of *scarlatina anginosa*. In all the others no sensible or apparent effect resulted from the administration of the remedy.

Dr. Stievenart generally continued the use of the remedy for from nine to ten days, in some cases, it was given for fifteen days. He thinks this period sufficiently long to put the system under the influence of the preservative powers of the remedy; but recommends to return to it if the epidemic return or break out again with renewed violence.

A few of the recorded instances in which belladonna has been successfully administered as a prophylaxis are noticed. Bayle in 1830 published a notice on this subject, by which it appears, that of 2027 individuals to whom belladonna was administered, 1948 were preserved from scarlet fever, and 79 were attacked with it. Dusterberg, by means of belladonna administered for two weeks, preserved from scarlet fever, all those who took the medicine. In order to ascertain the real value of the remedy, he purposely omitted to administer it to one child in every family, and this child alone, according to his report, was seized with the disease. He adds, however, that scarlet fever occasionally seized a child who had only been taking the remedy for three or four days, but was always in this case mild, and often only manifested its presence by desquamation ensuing. Zeuch, physician of the Military Hospital for Children in Tyrol, after 84 children were seized with scarlet fever, was induced to try the prophylactic effects of belladonna on the remaining 61 children. With a single exception all were preserved from its attacks, though the disease was raging around. Schenk, Berndt, Kohler, Meglin, De Lens, and other distinguished physicians speak in equally high terms of the prophylactic properties of belladonna.—*Edin. Med. and Surg. Journ.*, Oct. 1843, from *Bulletin de l'Acad.*, Feb. 1843.

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24. *Treatment of Tinea Capitis.*—Dr. A. L. WIGAN's mode of treating tinea capitis, and which he states is uniformly successful, is as follows:—

Unless the quantity of hair on the head is exceedingly small and offers no obstacle to the complete examination of the skin, I insist on the head being shaved very carefully, twice.

The reason is obvious: with a moderate quantity of hair you may be curing the parts which first attract notice, while others which have been infected are gradually progressing to a visible disease, and the cure is thus indefinitely prolonged. I do not, however, object to a little circlet of hair round the face, if there be no sign of disease apparent in it, and if it be carefully washed with hot common vinegar. This is a concession to parental vanity which may be safely made, and without which sometimes it would be impossible to obtain confidence.

My remedy is Beaufoy's *concentrated* acetic acid—pyroligneous acid, as it is still called—though no longer made from wood.

As a preliminary, however, I use the acid diluted with three times its weight of water. I call this the detector acid.

On its application a number of spots which looked perfectly healthy become red patches. They are indications that infection had been taken, but had not gone through its stages, which period I believe (after great experience) to be eight days. This assertion is not lightly hazarded.

Having by this reconnaissance ascertained the numbers and position of your enemy, your course is clear. One vigorous assault, and there is an end of the matter. With a piece of fine sponge either tied to the end of a stick or held in a pair of silver sugar-tongs, I imbue each spot thoroughly with the concentrated acid for the space of three or four minutes, and the business is finished.

The only reason why it is necessary to see the patient again, is, that as a crust is generally formed, and an appearance of "worsening" takes place, the friends require to have their confidence renewed from time to time by explanation and encouragement. I have often applied the acid more than once, but it was always (I firmly believe) unnecessary, when the preliminaries above stated had been gone through properly upon the *shaved* and *tested* head.

The crust gradually grows up with the hair, which soon sprouts again if the eruption be recent, and as soon as a pair of fine scissors can be inserted underneath, it should be removed; but this should not be done prematurely, lest a sore place be produced.

When first proposed, a good deal of correspondence took place respecting the plan with those who had tried it without success. I found, however, that in *every case* they had either used a much weaker acid (it is sold of all strengths), or that they had continued the use of it long after the disease was cured, and thus produced that not very rare result, "*disease of the Doctor.*" In the latter cases it was only necessary to discontinue the acid, and wash the head with warm water.—*London Medical Gazette*, Sept. 1843.

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25. *Cure of acute Hydrocephalus by means of large doses of Hydriodate of Potassa.* By Dr. Woeniger.—A child nearly two years old, of a scrofulous and lymphatic constitution, and who had before suffered from affections of the head and eyes, was attacked in August, 1841, after some days indisposition, with a severe inflammation of the brain. Dr. W. first saw him on the 25th August, when he commenced a severe antiphlogistic treatment, eight leeches were ordered to the back of the neck, and the bleeding from the bites was long maintained; followed by a large blister to the neck, upon which free suppuration was kept up, ice-water in a bladder to the shaved head, mustard plasters to the calf of the legs, and powders of 1 gr. of calomel with jalap, every two hours. Besides this, neapolitan ointment was freely rubbed upon the top of the head and neck.

No improvement was observed, notwithstanding the continued employment of the above means, and repeated applications of leeches, although several passages from the bowels were obtained. On the contrary the child grew worse, and on the 5th day, unmistakeable signs of water in the ventricles manifested themselves; namely, fixed and watery eyes, immovable and widely-dilated pupil, entire blindness, tetanic rigidity of the muscles of the neck, retraction of the head, paralysis of the left extremities, deep stupor, pulse slow (50 beats), having before been very small and quick, frequent screeching and vomiting, &c. In this desperate condition, Dr. W. recollecting the recommendation of large doses of hyd. pot. in such cases by Dr. Röser, laid aside all other means and prescribed ℞. Hydriod. pot. ʒj., aquæ destillat. ℥ss. of which 40 drops was to be taken every two hours, in sugared water; and on the next day as much as 50 drops each dose. During the first three days no improvement was manifested, but upon the fourth (the ninth of the disease) there was a decided remission of several of the unpleasant symptoms, and especially a free secretion of urine, which had been very scanty before. From this time, and after nearly ʒij. of hyd. potass had been taken, a rapid improvement was observed, and by the 12th day, the child was considered as cured. It must also be remarked, that at the beginning of the attack, there was observed an extensive, inflamed swelling of almost stony hardness, on the left side of the neck, immediately over the clavicle, which, treated with emollient applications, passed rapidly into a copious and deep suppuration of the cellular tissue. Large sloughs of the cellular tissue were discharged with laudable pus, so that after the entire removal of these, the muscles of the neck could be seen as if dissected out. The entire healing of this deep wound was completed about the end of September.

Dr. W. thinks, that the hyd. potass not only produced a critical discharge in the copious secretion of urine, but that it also, perhaps, occasioned a beneficial revulsion by causing the swelling above mentioned to suppurate. He thinks also, that the mercury which had been taken, may have contributed to produce this favourable result.—*Oppenheim's Zeitschrift, für die gesammte Medicin,* April, 1843.

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26. *Shivering as a diagnostic sign of Thoracic inflammation.*—M. Chomel, in one of his clinical lectures at the Hôtel Dieu, made the following remarks on this subject, in commenting on a case of pneumonia, that was in the wards:—

"I took much pains in questioning this patient, to ascertain whether she had experienced any chill, before the commencement of the attack; and her reply was always in the negative. This circumstance appears to me of importance; and it is therefore designedly that I call your attention to the subject, seeing that it is the professed opinion of many physicians that pneumonia, like articular rheumatism, may generally be traced to the influence of damp and cold. The results, however, of my own experience, as well as of that of many others whom I know, are quite opposed to this opinion. No doubt it often happens, that pneumonic patients will be found to have been chilled some time before the attack came on; but assuredly, the chill is not the only, nor even the principal, cause of the disease. If we inquire into the particulars of a case, we generally find, that there was a predisposition to the malady present in the system at the time, and that the chill only accelerated the development of the mischief.

"It was merely the occasion, so to speak, of the explosion of a pre-existing morbid state; just in the same manner as a simple indigestion may be the exciting cause of a gastric inflammation in a person, in whom there is a strong disposition to this disease.

"But the same remark does not hold true of shivering when this occurs at the commencement of a disease. In my opinion, it is an almost invariable sign of pulmonary inflammation. Whenever, therefore, this symptom is or has been present, the physician will do wisely to direct his attention to the chest; and very generally, at least according to my experience, he will find that an inflammatory process has been set up in the lungs—unless indeed some well-marked symptoms clearly point to another organ as the seat of suffering. I do not deny, as a matter of course, that an attack of peritonitis, enteritis, &c., is sometimes ushered in with shivering; all that I mean to assert is, that this symptom is infinitely more common as a precursor of pneumonia than of any other inflammation. Hence in practice, whenever any of my patients has a well marked shivering fit, even although other symptoms indicative of disease elsewhere be strongly marked, I at once suspect that the lungs are more or less seriously affected. On very many occasions, indeed, this symptom alone has sufficed to suggest to me the right diagnosis, while other medical men who have seen the case at the same time, have formed a very different opinion.

"There is another character which equally deserves the attentive consideration of the physician—and that is the pain in the side. In pleuro-pneumonia the pain is generally seated in the region of the mamma, although the affected part of the lung does not correspond to this point, or perhaps extends much beyond it. It has been suggested, in the way of explanation, that there is a greater degree of friction between the pulmonic and the costal pleuræ at this point than at any other, and that this may be the cause of the phenomenon in question. But if such were the case, the pain should surely not be limited to so circumscribed a spot, but should extend over all the surface where this greater friction is experienced; and we might expect, moreover, that it should change its locality—which certainly does not hold true. No satisfactory explanation has hitherto been offered of this symptom, and we must therefore confess our ignorance upon the point."—*L. & E. Monthly Journ. Med. Sci.*, Oct. 1843, from *Gazette des Hôpitaux.*

SURGICAL PATHOLOGY AND THERAPEUTICS AND OPERATIVE SURGERY.

27. *Successful case of operation for the formation of a New Urethra.*—M. Ricord presented to the Academy of Medicine, on the 7th of March last, a man who had been operated on for the restoration of the urinary canal on the 27th of January. At this time he made water freely by the new canal, which was of sufficient size to admit bougies of a large diameter.

A phagedenic chancre had destroyed the urethral canal for the whole length of the *corpora cavernosa*, as well as the greater portion of the skin of the penis, so that about three-fourths of the circumference of the *corpora cavernosa*, as well as the longitudinal groove, indicating the site of the urethra, were alone covered by a thin cicatrix. The urine escaped from the perinæum by an aperture concealed by the skin of the scrotum. M. Ricord thought that a new urethral canal might be formed between the *corpora cavernosa* and the thin cicatrix, which covered the groove between them, and he effected it in the following manner.

A slender flattened trocar, with a lance-shaped point, was introduced into the *meatus urinarius*, and its point pushed into the cellular tissue, which lies between the *corpora cavernosa.* It was carefully pushed on in the direction of the urethra, taking care not to injure the thin cicatrix, till it arrived within about half an inch of the perinæal aperture, from which the urine escaped. A gorget was introduced by this aperture, to the depth of about half an inch, so as to form a continuous canal with that which the trocar had made. After this operation, which did not produce very severe pain, the perforating instrument was withdrawn, and a silver canula introduced, and within two hours after the operation the urine came freely away through the catheter. Cloths dipped in cold water were the only dressings used. Very little swelling or inflammatory action occurred. The catheter was replaced on the fifth day by a gum elastic sound, and since that time their diameter has been gradually enlarged, so as to bring the new urethra to proper dimensions.—*Ed. Med. & Surg. Journ.*, Oct. 1843, from *Bulletin de l'Acad.* April, 1843.

28. *Experiments illustrative of the mode of formation of Dissecting Aneurisms.*—Dr. Thomas B. Peacock has instituted the following experiments with the view of ascertaining the mode of formation of dissecting aneurisms.

"1*st*, The aorta of a young man, 23 years of age, who died of phthisis, was cut across at its point of passage from the chest, and a pipe inserted. The internal coats of the vessel having been previously divided near its lower extremity, and a ligature applied round the vessels passing to the head and neck, and at the root of the aorta, on injecting water from an eight oz syringe, the vessel became distended, and the fluid then insinuated itself between the coats, separating and distending them as far as the subclavian artery; beyond this the separation could not be continued, in consequence of the fluid freely escaping by